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Guest Editorial

Future Strategies in Clinical Chemistry

Introductory comment and remarks on Haeckel's review "Future Perspectives of Automization in Clinical Chemistry"[1])

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Dr. *Haeckel*'s paper "Future Perspectives in Clinical Chemistry" is a timely and admirable summary. Clinical Chemistry is certainly entering a new phase. Laboratories in developed countries do have the ability to perform many tests precisely, accurately, quickly and cheaply.

In general clinical chemistry has a proud record in the acceptance and introduction of new technologies and the adoption of good management techniques. Such developments are not as easily accepted and applied in other areas of hospital activity. However, there is an urgent need for more work to be carried out on the diagnostic reliability of clinical chemistry investigations and as Dr. *Haeckel* states, the area of preventive medicine will be especially important. These are the key notes of the new era.

The emphasis on the use of the computer for problem orientated clinical decisions using laboratory results, is important. The diagnosis of a patient is frequently known even at the time a patient enters a hospital or attends a clinic; skill in effective medical care is frequently based upon decisions made regarding the specific problems of the patient. The widespread use of computers in clinical chemistry gives considerable opportunity for clinical chemists to improve their relationships with clinicians in this important area of deciding on the "next action" as explained by Dr. *Haeckel*. It is important to note that Dr. *Haeckel*'s consideration of future perspectives of our subject begins with a consideration of the needs of the patient.

It is salutory that developments in specimen identification and handling have not paralleled these in the mechanisation of analytical procedures. Dr. *Haeckel* reports that there are signs that some developments in this important area are about to be introduced commercially.

There is still room for improvement in the instruments at present in use in clinical chemistry and Dr. *Haeckel* has rightly identified such areas as better temperature control in enzyme analysers, the use of smaller reagent volumes, feed-back requirements for fault finding and the automatic detection of unsuitable biological materials because of interfering endogenous chromogens.

With regard to the future technologies in clinical laboratories listed by Dr. *Haeckel* the wide use of immunoassay techniques is an important omission in what is otherwise a comprehensive list. Specific selective electrodes are now an important part of clinical chemistry, calorimetry has been investigated for several years without a commercial instrument appearing, luminescent spectrometry is causing increasing attention. Thin layer reagent carriers are rightly mentioned as promising future techniques.

A most interesting and stimulating contribution by Dr. *Haeckel*. The most important message is in his conclusion – "in subsequent years the clinical laboratory will be primarily concerned with the investigation and interpretation of laboratory data . . ." Technological innovation will continue at an increasing pace. The questions to be answered concern the cost benefit of clinical chemistry services.

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